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Patent claims

Claims 1-16: (Canceled)

- 17 (New) A superimposition transmission for a superimposition steering unit of a vehicle, in which a steering angle set by the vehicle driver can, be superimposed by an additional angle, the transmission comprising at least two toothed gears, wherein at least a first toothed gear is designed with reference to low noise level and assumes the transmission of force in the case of normal transmission function, and that, at least a second toothed gear is designed with reference to the transmission of force in the event of an overload of the transmission function.
- 18 (New) The transmission according to claim 17 , wherein the first toothed gear is designed to optimize at least one parameter out of the group consisting of low vibration level and low clearance.
- 19 (New) The transmission according to claim 17 , wherein the event of a transmission function overload is present if a specific momentum boundary value is exceeded, which the transmission does not exceed during normal operation.
- 20 (New) The transmission according to claim 17 , wherein the second toothed gear comes into engagement after a specific elastic deformation of the first toothed gear.
- 21 (New) A superimposition transmission according to claim 17 , wherein at least one first toothed gear and one second toothed gear are provided in the transmission, where the first and the second toothed gears have different physical characteristics.
- 22 (New) The transmission according to claim 17 , wherein the second toothed gear is harder than the first toothed gear.
- 23 (New) The transmission according to claim 17, wherein the second toothed gear is

more stable in its shape than the first toothed gear.

- 24 (New) The transmission according to claim 17 , wherein the first and second toothed gears have different moduli of elasticity (E-moduli).
- 25 (New) The transmission according to claim 17 , wherein, for making the first and the second toothed gear, at least in part, different materials are used.
- 26 (New) The transmission according to claim 25, wherein a metallic material and a plastic are used as the different materials.
- 27 (New) The transmission according to claim 17 , wherein the first and the second toothed gears are positioned axially offset from one another.
- 28 (New) The transmission according to claim 27, wherein the first toothed gear is offset radially from the second toothed gear by a positive profile displacement.
- 29 (New) The transmission according to claim 17 , wherein the transmission has a straight gearing.
- 30 (New) The transmission according to claim 17 , wherein the transmission is a planetary transmission.
- 31 (New) The transmission according to claim 14, wherein the first and the second toothed gears are planetary wheels in the planetary transmission.
- 32 (New) The transmission according to claim 15, wherein the first and the second planetary wheels have a radially non-rigid suspension or support bearing.